

STUDENT ID NO							

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2018 / 2019

PCA 0084 – COMPUTER SYSTEM AND WEB DESIGN

(Foundation in Business)

31 MAY 2019 9.00am – 11.00am (2 Hours)

INSTRUCTIONS TO STUDENT

- 1. This question paper consists of 4 pages (excluding the cover page) with 5 questions only.
- 2. Attempt ALL questions. All questions carry equal marks and the distribution of the marks for each question is given.
- 3. Please write all your answers in the Answer Booklet provided.

QUESTION 1 [10 Marks]

- a. Name ONE (1) suitable input or output device to do the following tasks.
 - i. To produce audio output that can be heard by many listeners.
 - ii. To take and enlarge images generated by a computer and output them onto a white screen, wall or any white surface.
 - iii. To use keys to type characters or numbers into a computer.
 - iv. To click, right click or double click to enter data into a computer.

(2 marks)

b. Optical Character Recognition (OCR) and Magnetic Ink Character Recognition (MICR) are types of scanning and reading devices. Briefly explain the function of these two devices.

(2 marks)

c. Some printers are called multifunction peripheral or all-in-one device. What are the functions provided by this type of peripheral?

(2 marks)

d. Give TWO (2) reasons why there are so many different storage devices?

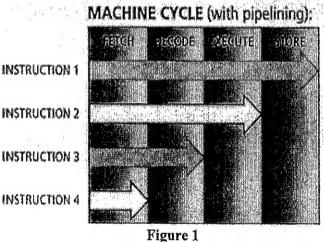
(2 marks)

e. Why do we need to format the disk before using it? Briefly explain.

(2 marks)

QUESTION 2 [10 Marks]

a. Figure 1 shows the machine cycle with a pipelining technology. Based on the figure below, briefly describe the concept of pipelining and what effect does it have on the processor.



(2 marks)

b. Briefly explain what is ASCII code?

(2 marks)

Continued...

- c. What is the purpose of the following computer components?
 - i. Ports
 - ii. Expansion slots
 - iii. Memory cache

(3 marks)

- d. There are four categories of application software. Answer the following questions.
 - i. List any TWO (2) of the categories.

(1 mark)

- ii. From the four categories of application software, which category consists the following examples of software?
 - 1. Web Browser, Email, VoIP
 - 2. Desktop Publishing, Paint.Net, Computer Aided Design (CAD)

(1 mark)

e. Microsoft Office is an example of software suite. What is software suite?

(1 mark)

QUESTION 3 [10 Marks]

- a. An operating system is the most important software that runs on a computer. It contains a set of programs that work together to coordinate all the activities among computer hardware resources. Based on this information, answer the following questions.
 - i. Why do we sometimes perform a warm boot?
 - ii. Why Graphical User Interface (GUI) is said to be a user friendly interface?
 - iii. What is a server operating system?

(3 marks)

b. If you notice your computer is running slow, you should consider running the defragmenter program. Briefly explain why.

(1 mark)

c. Figure 2 shows the three basic components involved to create communications in networking. Elaborate further the figure by giving ONE (1) example of device for each component and the process involved between the components.

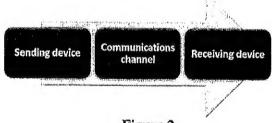


Figure 2

(2 marks)

d. Refer to **Table 1**. Match the protocol name in the left column to its purpose in the right column by writing the protocol name in the blanks provided. An example is shown below.

Table 1

Protocol name	Purpose			
Ethernet	_Wifi is to access wireless local area network.			
Token ring	ii is to transmit data using short range radio waves			
WiFi	iii is to connect wired local area network			
TCP/IP	iv is to pass a special signal around the computers and devices on the network.			
Bluetooth	v is to transmit data via infrared light waves.			
UWB (ultra-wideband)	vi is to transmit data using short range radio waves but at high speed.			
IrDA	vii is to access the internet.			

(3 marks)

e. What is an intranet?

(1 mark)

QUESTION 4 [10 Marks]

- a. In database concept, explain the following terms.
 - i. Data integrity
 - ii. GIGO (garbage in garbage out)

(2 marks)

b. Table 2 shows the basic database elements that are created to hold data in a database. However, the elements showed in Table 2 are not arranged from smallest unit of data to largest.

Table 2

Size	Smallest			Largest
Elements	Fields	Characters	Files	Records

Rearrange the elements in correct order from smallest unit of data to largest.

(2 marks)

c. Explain what is multimedia application?

(2 marks)

Continued...

d. State TWO (2) reasons why would you choose JPEG over GIF format?

(2 marks)

e. What is the difference between immersive and non-immersive virtual reality applications?

(2 marks)

QUESTION 5 [10 Marks]

a. How do computer viruses and worms differ when affecting a computer?

(2 marks)

b. Both hackers and crackers are a threat to our computers. However, many computer or Internet users agree that crackers are more dangerous than hackers. Explain why.

(2 marks)

c. One of the results of system failure is a computer may shut down without warning and without any error message. State and explain TWO (2) factors that can lead to system failure.

(2 marks)

d. Information theft is a situation when you are "online" and your personal information such your name, addresses, emails, telephone numbers, bank and credit card details are stolen by third parties on the Internet. Give TWO (2) possible problems that may arise because of information theft.

(2 marks)

e. Suggest TWO (2) ergonomic approach at your workplace to avoid injuries or illness.

(2 marks)